

recently that an actual test of this fact has been made in the field. Very possibly it is familiar to many readers of the FERN JOURNAL, but on the chance that there may be others who have not tried it, this note is published.

On a recent trip near Greenwood Lake, N. Y., colonies of fruiting Lycopodiums (*L. obscurum*, *L. complanatum*, *L. clavatum*), were found near Cedar Pond, one of the northern localities for the southern white cedar. The fruiting spikes were in a condition to discharge their spores at a slight touch. When a burning match was held in readiness the spores ignited with a little puff.

Later, in the city, an ounce of *Lycopodium* spores was purchased at a drug store and a material was used for an entertainment demonstration at the start of a general science class period. Apparently a definite condition of suspension in the air is necessary for the flashing effect. When a match was held to a small quantity of the spore powder on a stone window ledge, nothing happened; when a small quantity of the powder was placed on a thin copper plate and heated over a Bunsen burner the spores scorched and blackened but did not flash. When, however, a pinch was dropped into the flame of a burning match, an instant pyrotechnic display was obtained.

The material was of special interest to the chemistry teacher of the department as being more suitable for demonstrations of the explosive quality of dust than the ordinary substances used in this connection. Any one interested to try it is cautioned against using too much at a time. It seems entirely likely that a dangerous explosion might be produced if a considerable quantity were released in the air of a room.

WHAT FERNS MAY BE WEEDS?—Some years ago, in the course of a lecture on ferns delivered in Boston, I made a statement to the effect that ferns are retiring; the denizens of the wild, and not happy under conditions of

cultivation; that one never finds ferns as weeds. The statement was challenged at the close of the talk by someone who reported the marsh fern as a real pest in cranberry culture. References have also been made in government publications to the common brake as sometimes troublesome, especially in pasture land. The following quotation regarding weeds in the State of Washington is another case in point. Readers are asked to report any other significant instances of the ferns as trouble-makers. Do they ever invade ploughed land? The quotation is another illustration of the well-known fact that most trouble in the weed line is due to immigrant plants just as most difficulty with animals is likewise concerned with foreign types.

NATIVE WEEDS.¹—“After the removal of the forests only a few of the native species persisted as troublesome weeds in the clearings. Even some of these are species accustomed to the open places along the banks of streams or shores of lakes where trees were absent on account of the periodic fluctuation of the water level and erosion. The common brake fern, *Pteridium aquilinum* var. *pubescens* Underw., was the most troublesome pest on newly cleared uplands. Under thorough cultivation, or with persistent efforts to eradicate it, the brake fern usually survived only a few years but in some pastures and grasslands, it has survived for twenty years or more. In some neglected logged-off pasture lands it has even spread. In the lowlands, especially in sandy soil, the common field horsetail, *Equisetum arvense* L., became very abundant, especially in meadows where it is even now a bad pest in many places. *Equisetum telmateia* Ehrh. was frequently troublesome, especially in poorly

¹ Muenscher, W. C., “Some Changes in the Weed Flora of Whatcom County, Washington.” *Torreyia* 30: 13-134. Sept.-Oct., 1930.

drained pastures. On recently burned over stump lands and newly cleared land, the fireweed, *Epilobium angustifolium* L., frequently persisted for several years on the uplands, while on the lowlands, *Epilobium adenocaulon* Haussk. was a common pest in pastures, meadows and grainfields. Neither of these weeds persisted long under cultivation."—R. C. B.

American Fern Society

The following letter, received some time ago from Dr. Kestner, but crowded out of the preceding number of the JOURNAL, should be of interest to our members, and attention is called to his desiderata.

In the April–June number, 1929, of the JOURNAL you were kind enough to insert a letter in which I appealed for spores from American rock ferns. The courteous response from members of the Society has been more than I could have expected, and thanks to their kindness I have obtained spores from almost every hardy rock fern in the United States. I have thanked the various correspondents direct and wish to renew my thanks again, also to assure those who have asked for spores and ferns from me that what I have been unable to send last year shall be sent this year with the exception of some ferns it will possibly take me longer to get hold of.

Even the rare Appalachian *Aspleniums* have all been sent, with the exception of no. 13 mentioned in Dr. E. T. Wherry's paper in the JOURNAL of April–June, 1925.

I am glad to say I have succeeded so far with all sowings save *Asplenium Trudelli*, which I have received from both Dr. Wherry and Mr. E. W. Graves . . . and *A. cryptolepis*. No spores of either have germinated. . . .

Dr. Wherry has sent me spores from *Woodsia scopulina* gathered in the Appalachians, which he suggested might be distinct from *W. scopulina* from the West.